

CONCENTRATION[atoms/cm³]

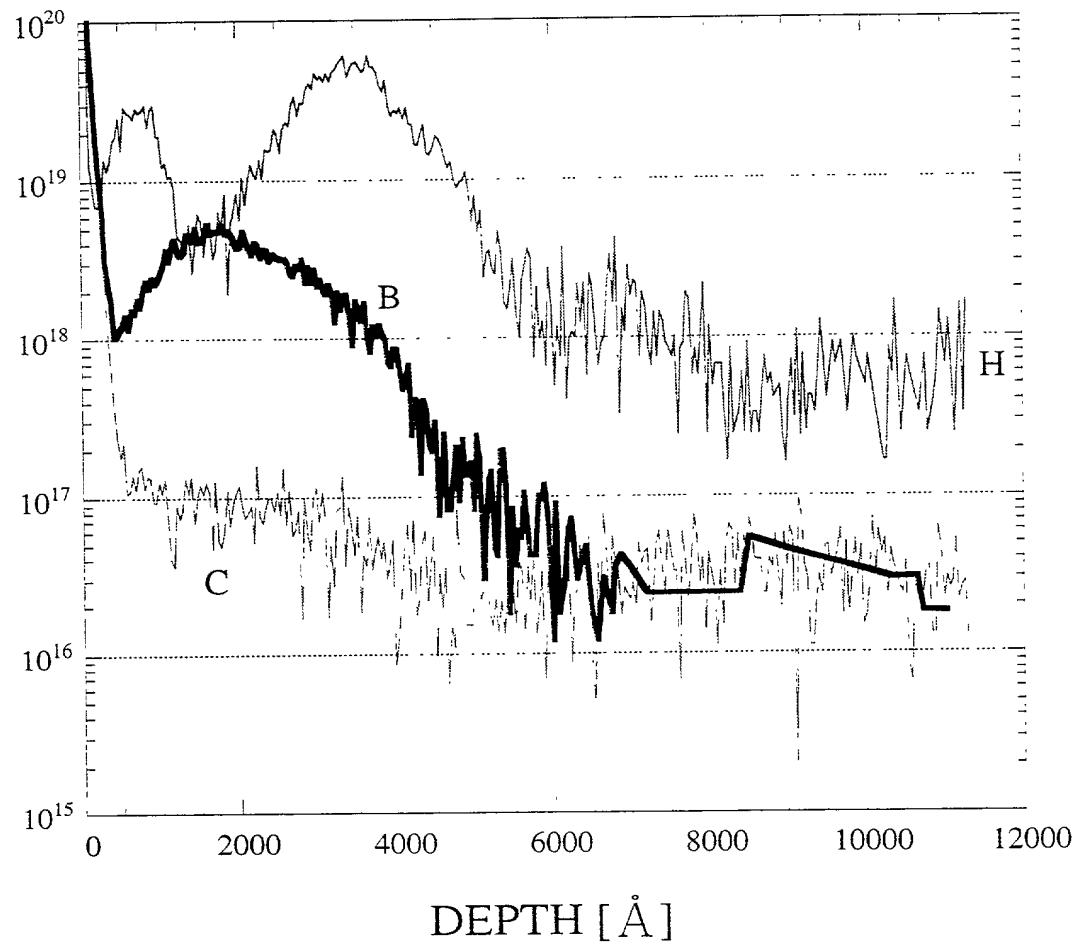


Fig. 1

CONCENTRATION[atoms/cm³]

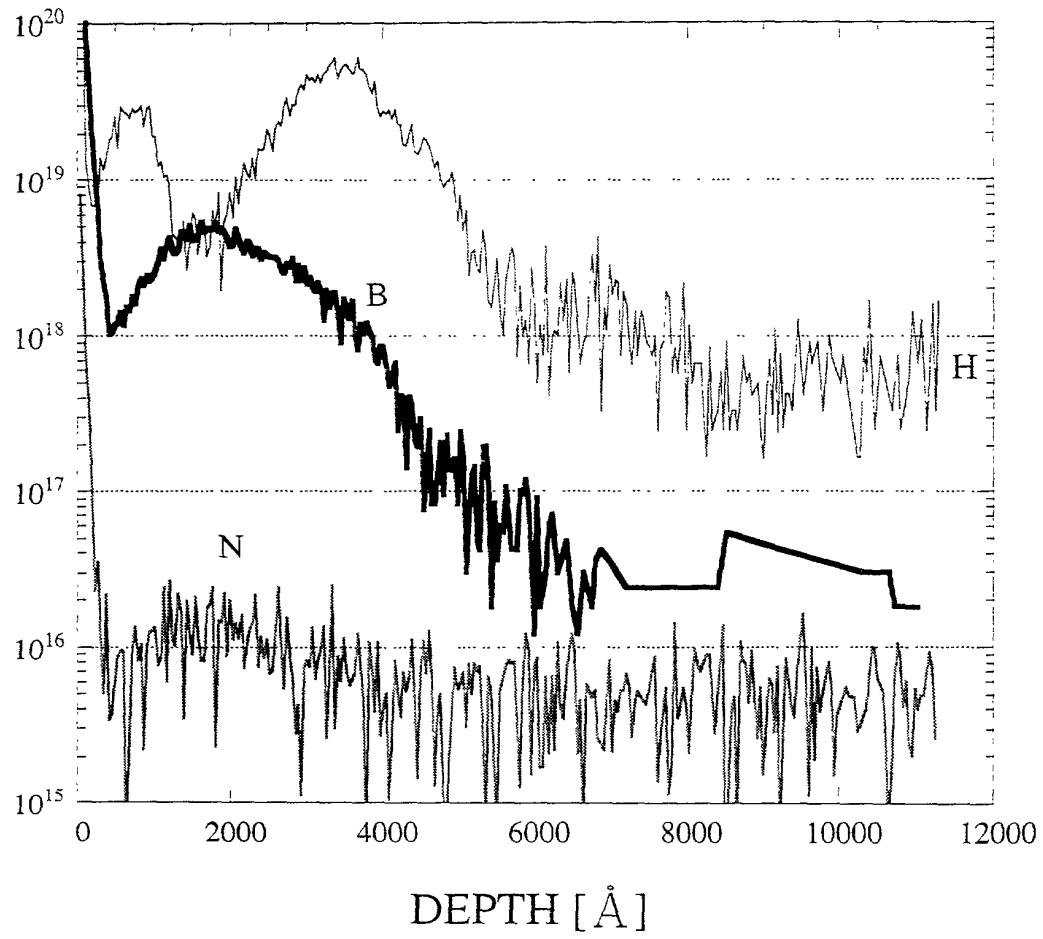


Fig. 2

CONCENTRATION[atoms/cm³]

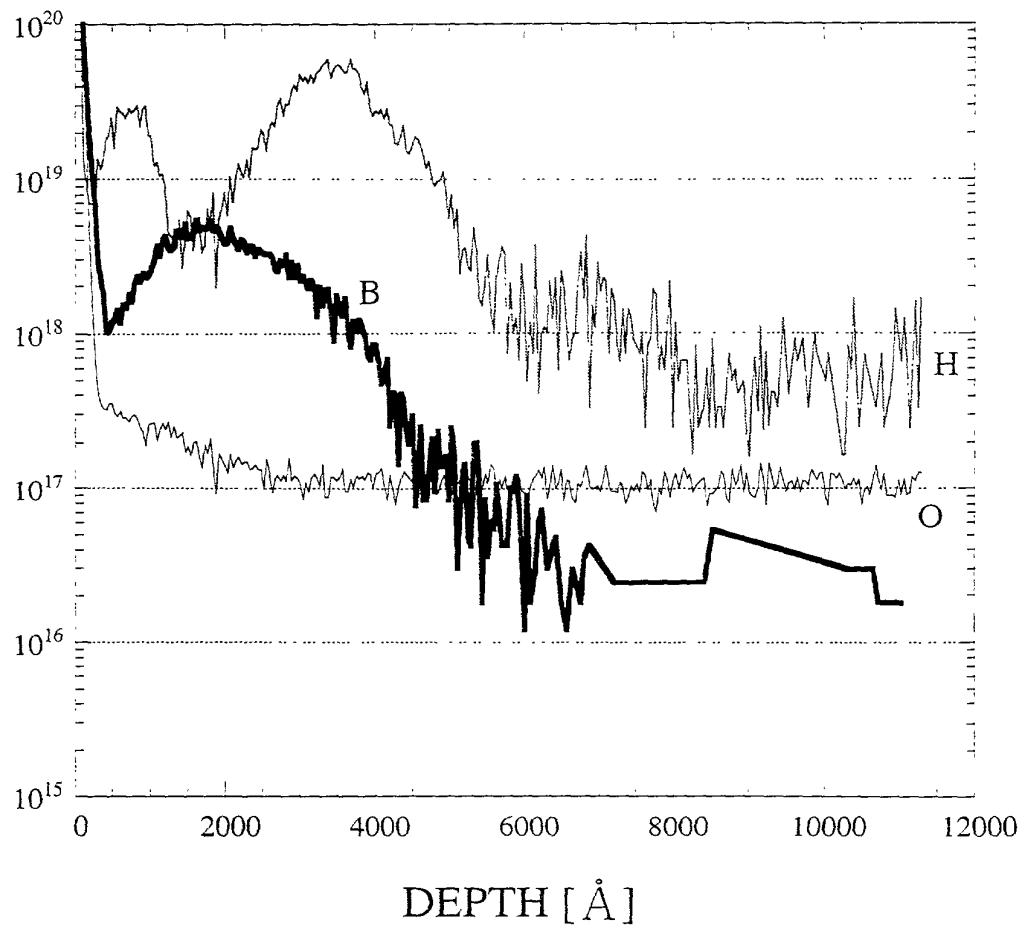


Fig. 3

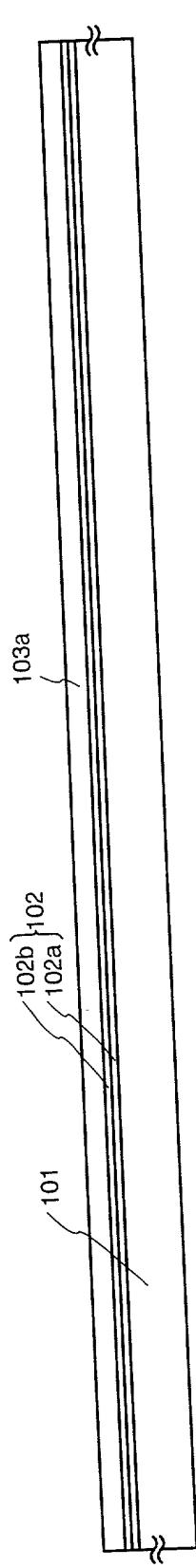


Fig. 4A

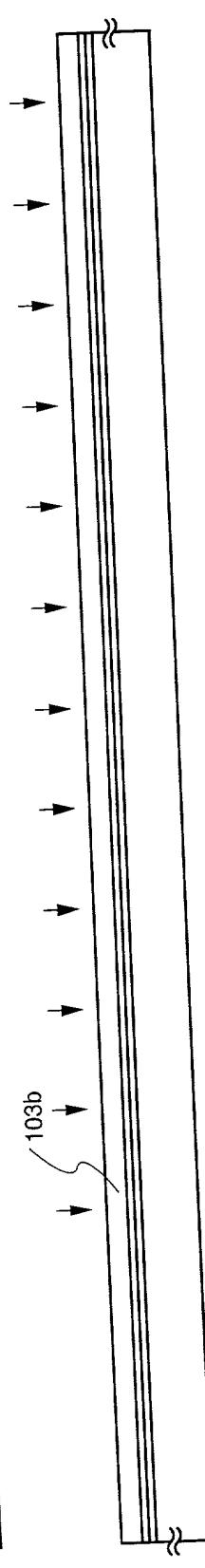


Fig. 4B

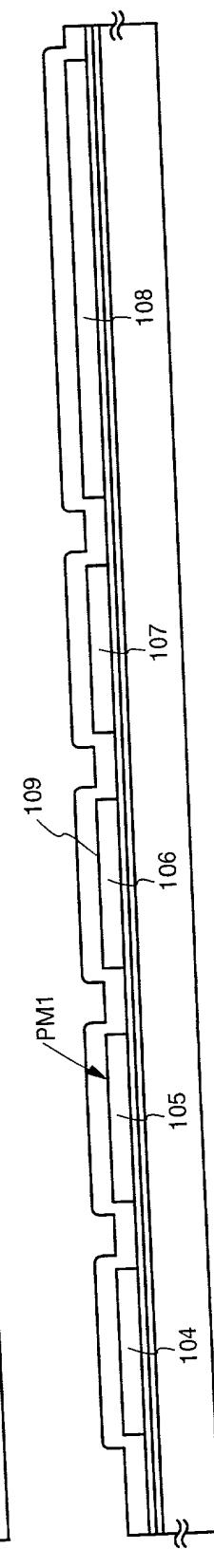


Fig. 4C

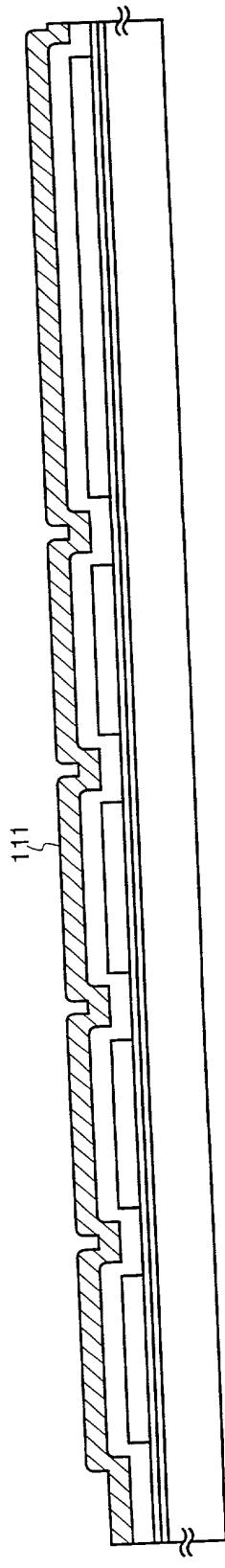


Fig. 4D

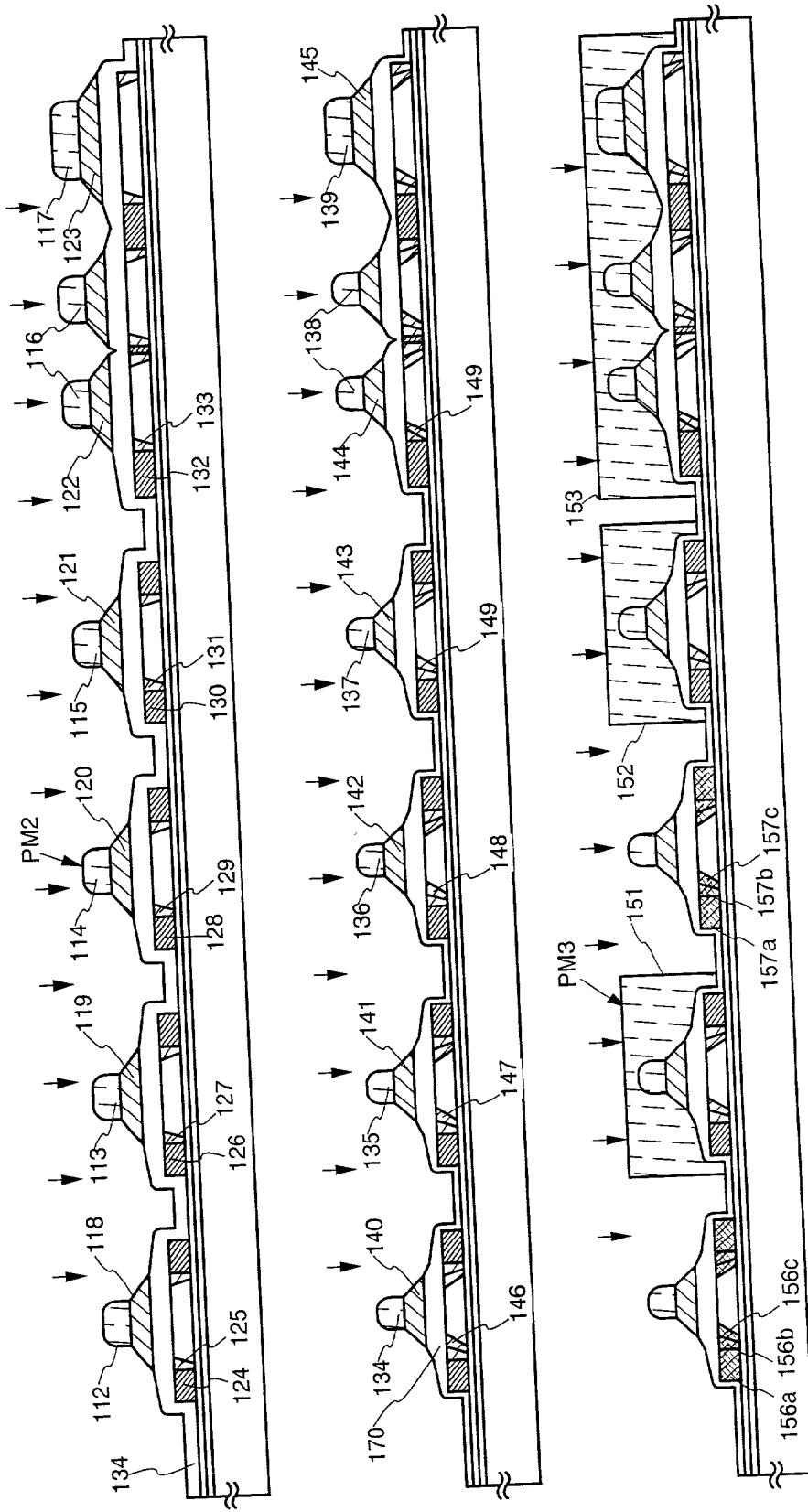


Fig. 5A

Fig. 5B

Fig. 5C

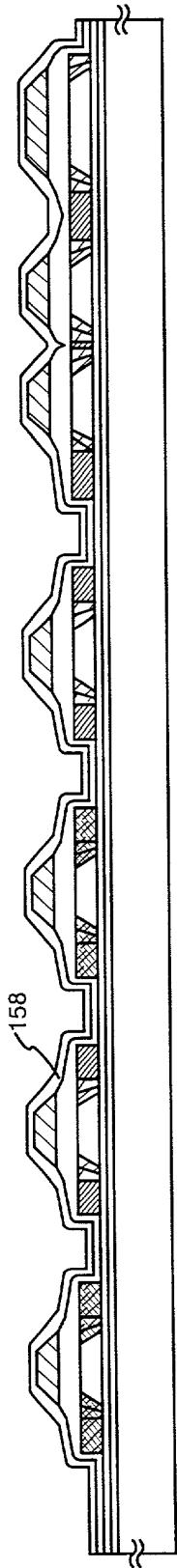


Fig. 6A

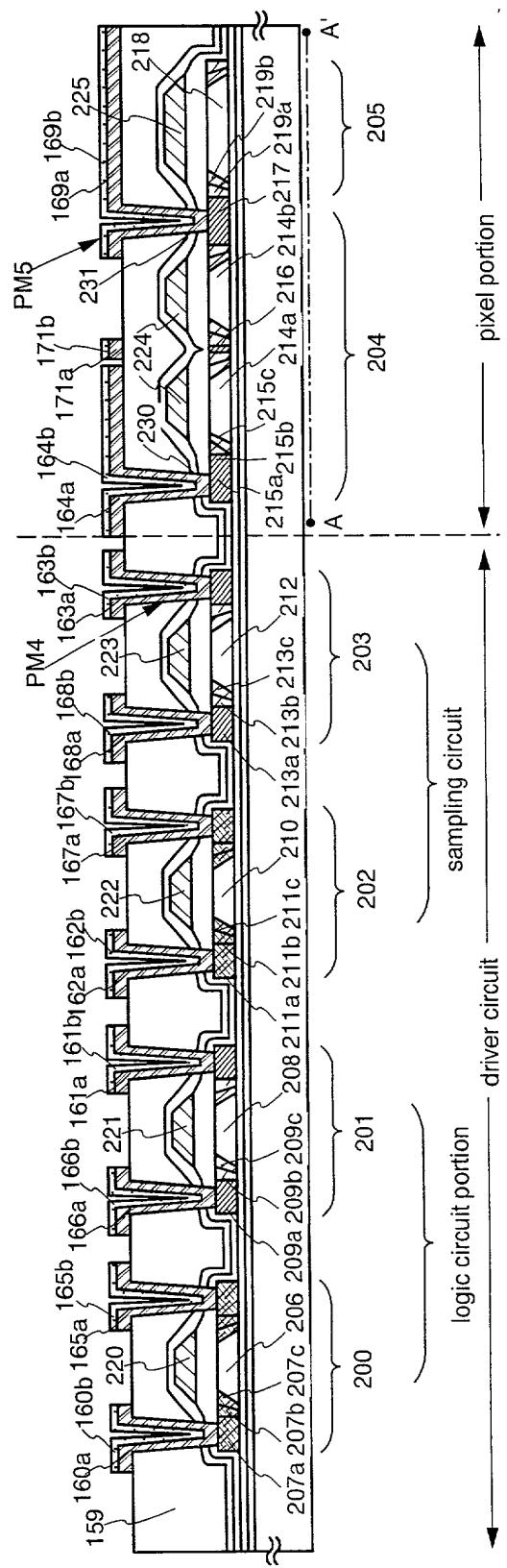


Fig. 6B

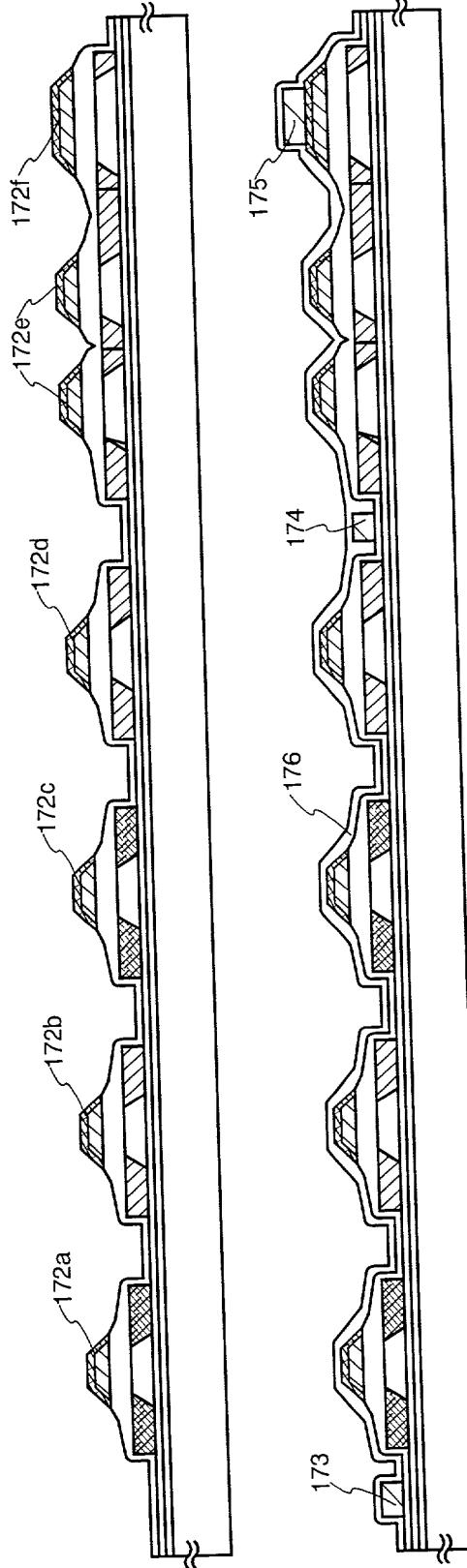


Fig. 7A

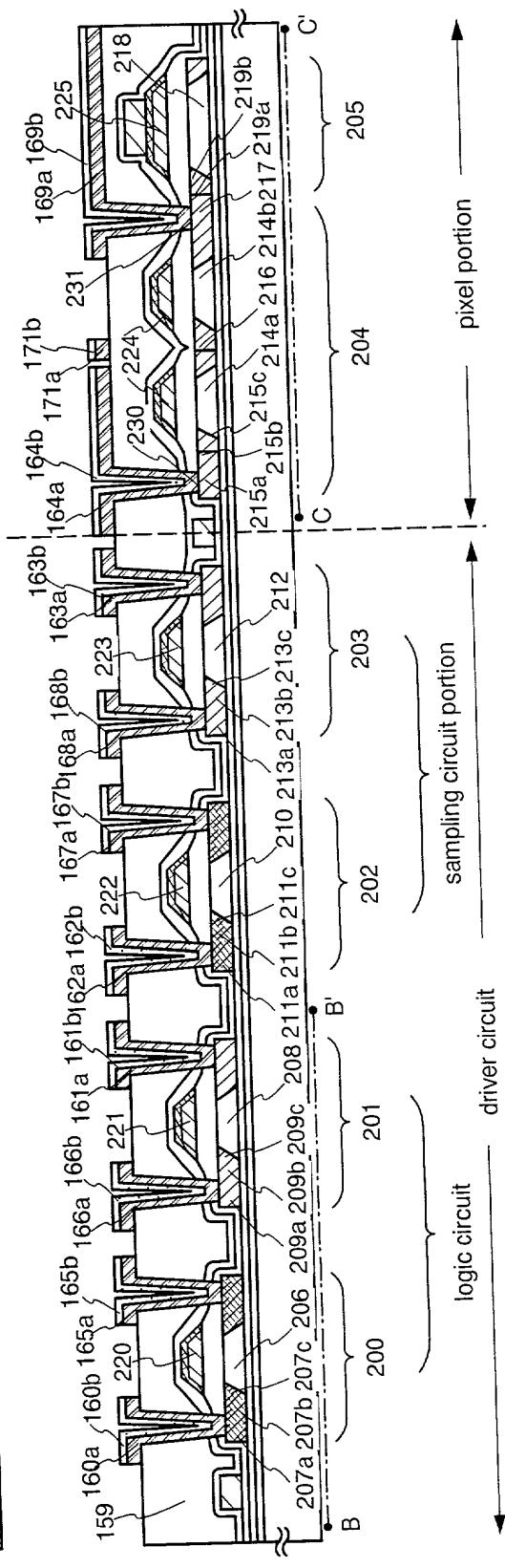


Fig. 7C

Fig. 8A

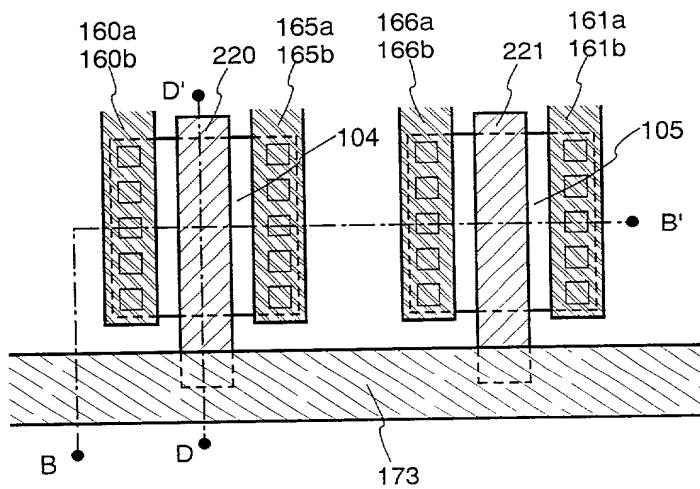


Fig. 8B

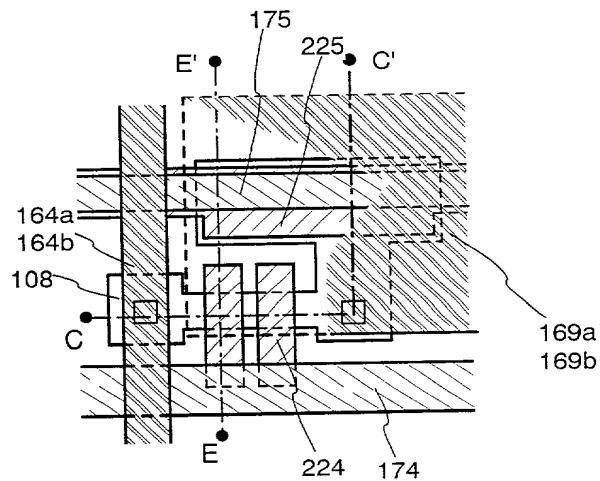


Fig. 9A

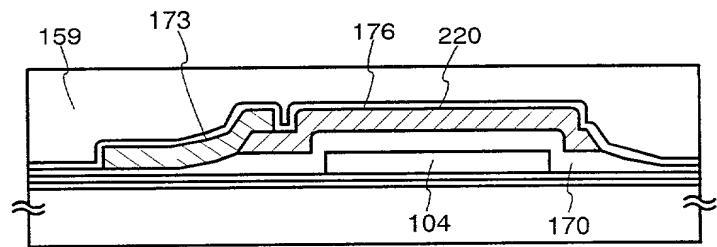


Fig. 9B

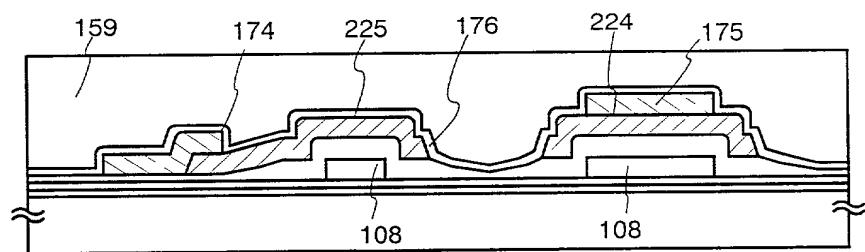


Fig. 10A

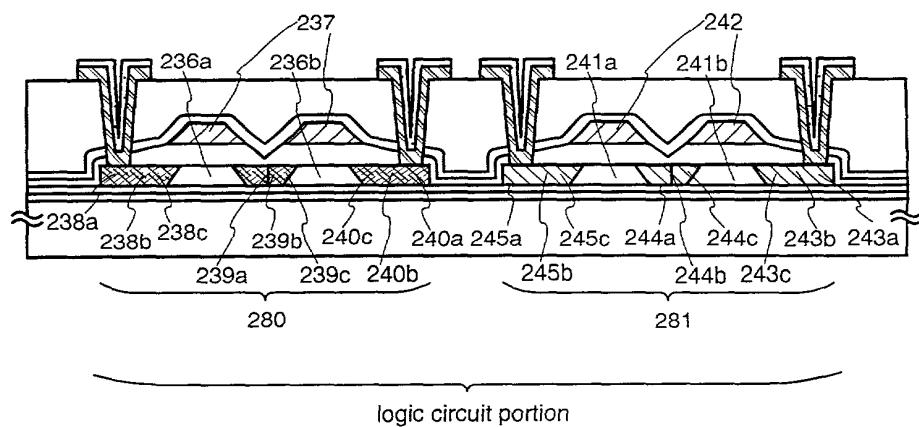


Fig. 10B

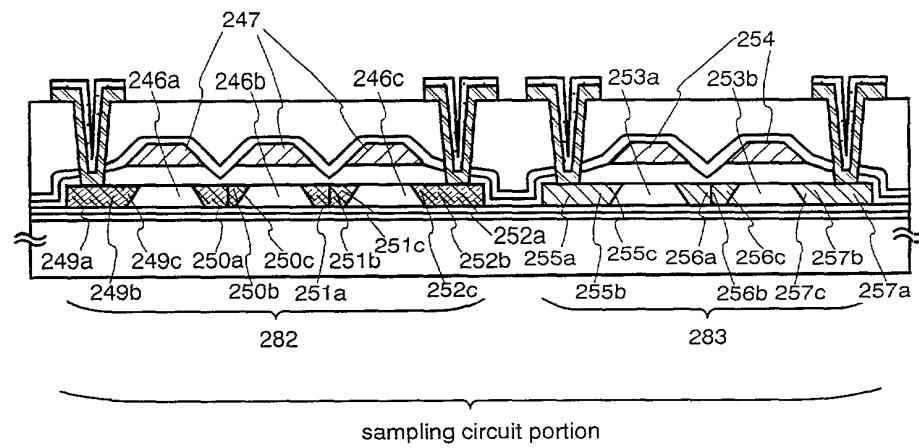


Fig. 11A

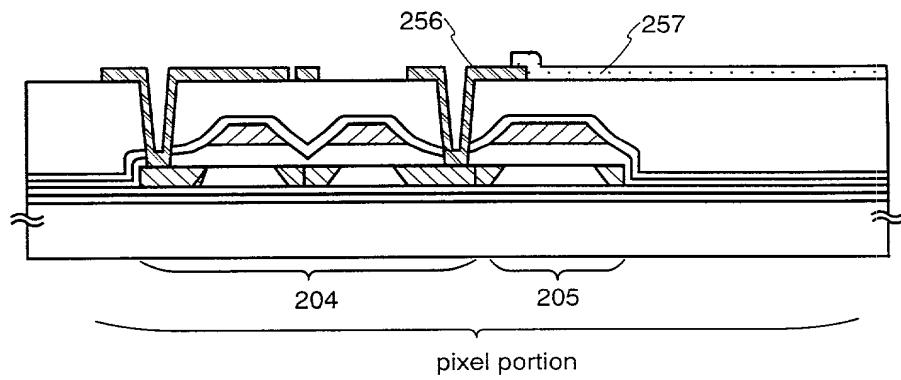


Fig. 11B

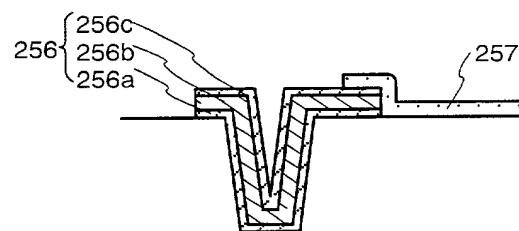


Fig. 11C

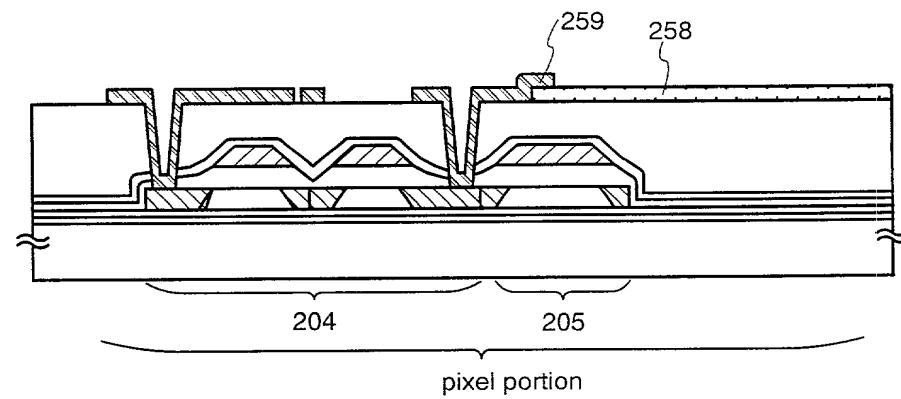
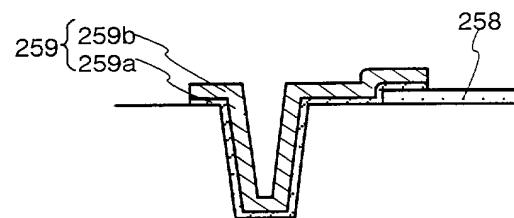


Fig. 11D



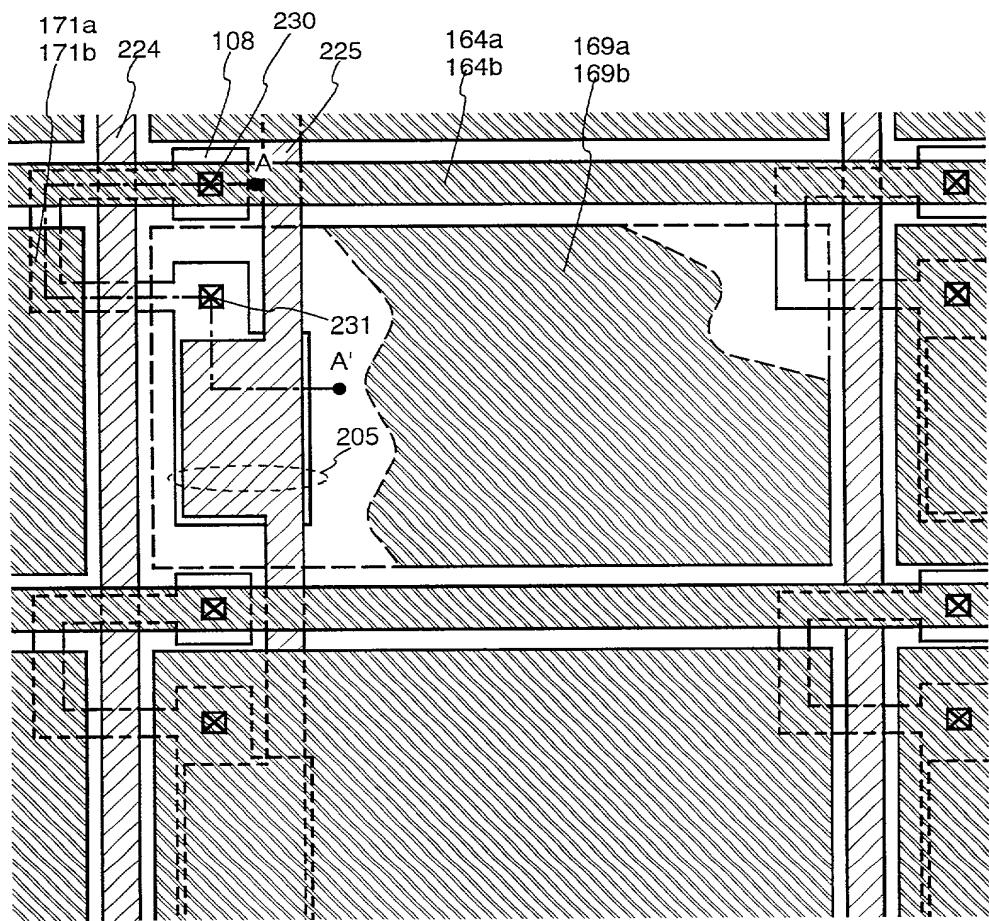


Fig. 12

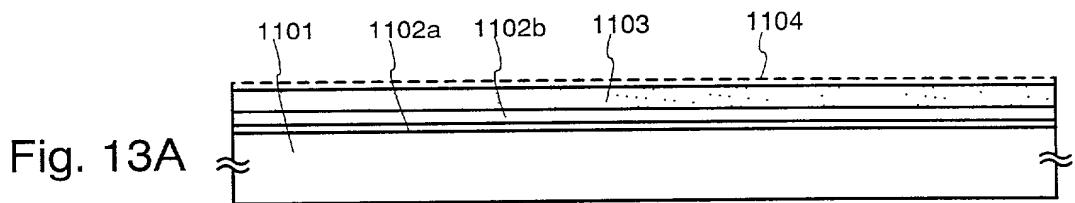


Fig. 13A

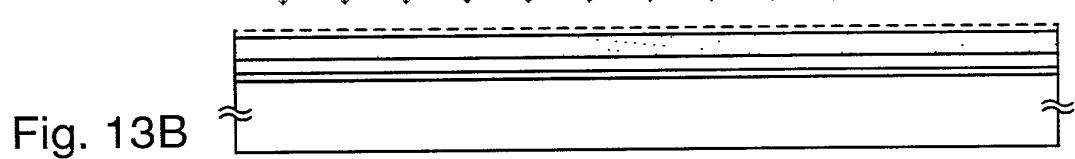


Fig. 13B

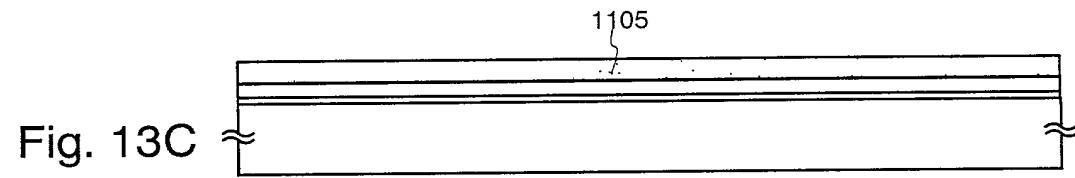


Fig. 13C

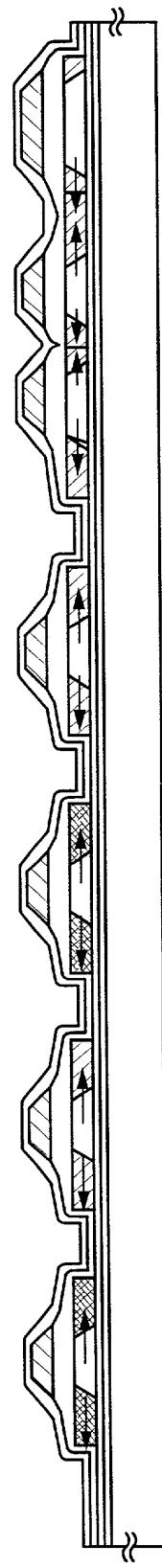


Fig. 14

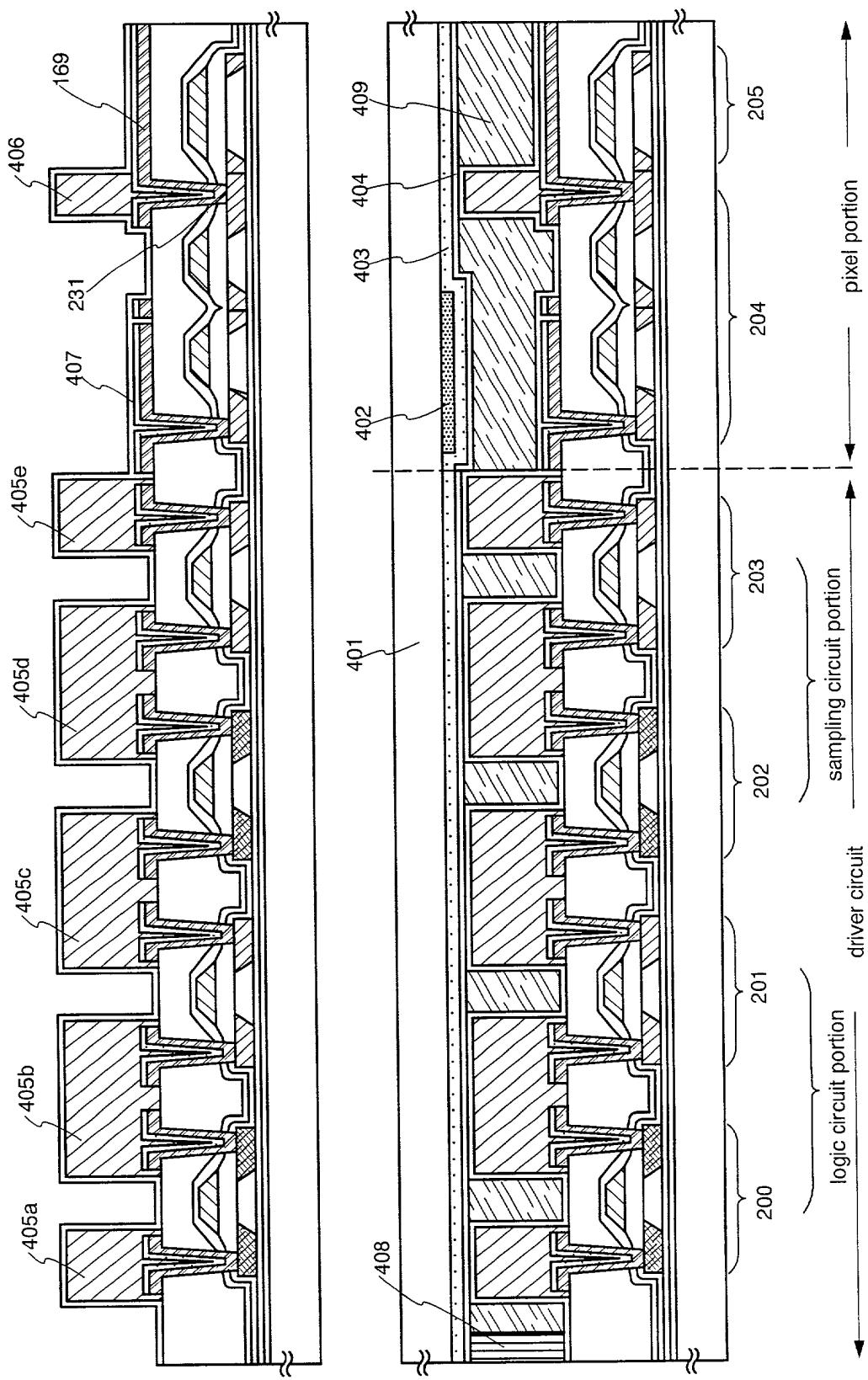


Fig. 15

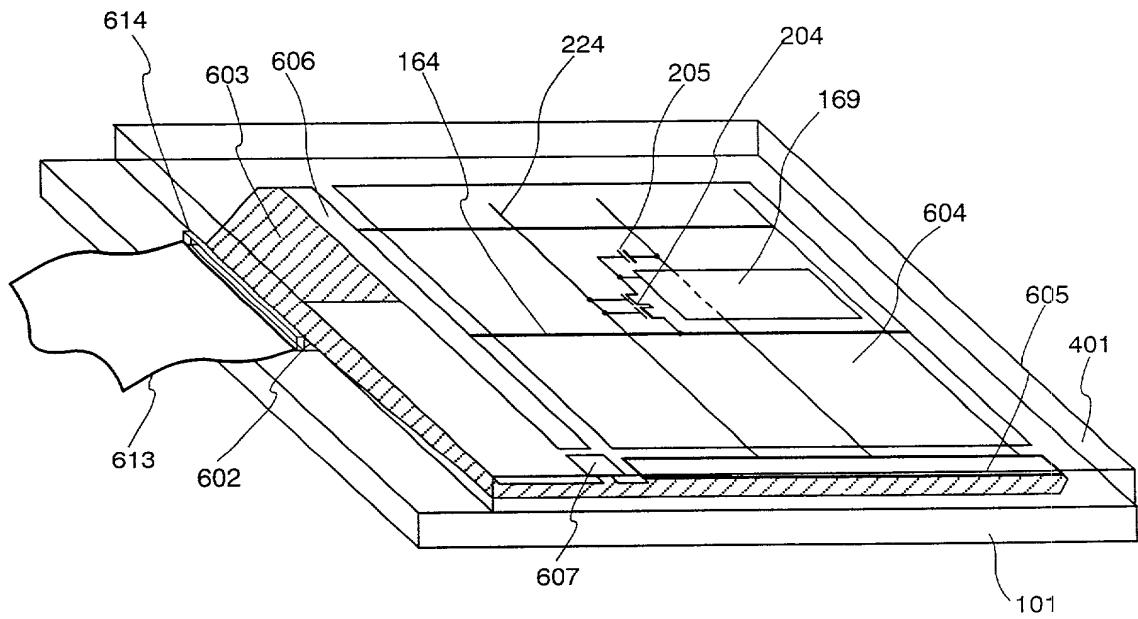


Fig. 16

Fig. 17A

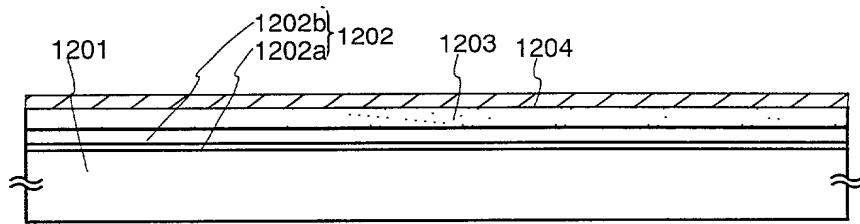


Fig. 17B

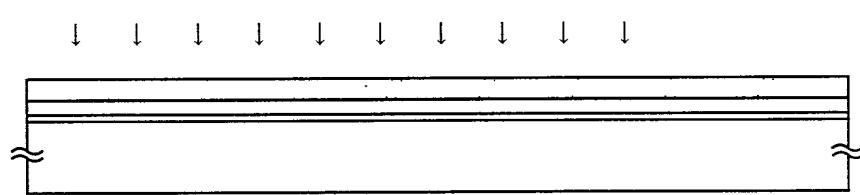
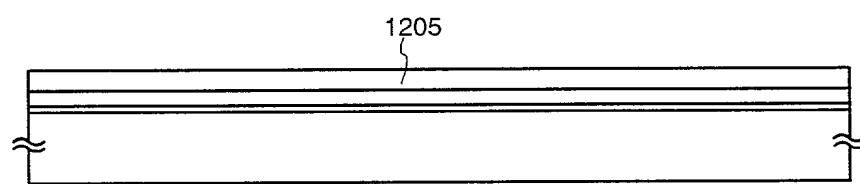


Fig. 17C



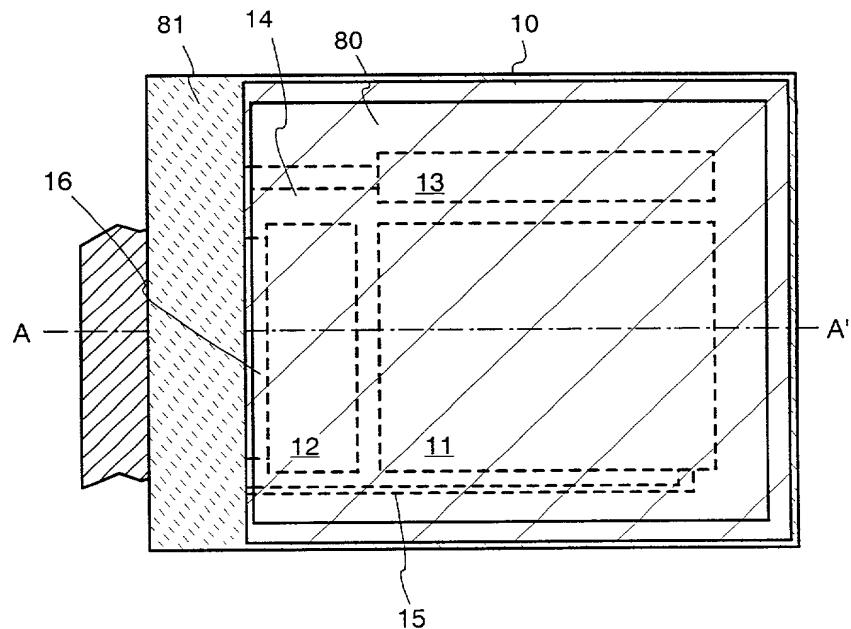


Fig. 18A

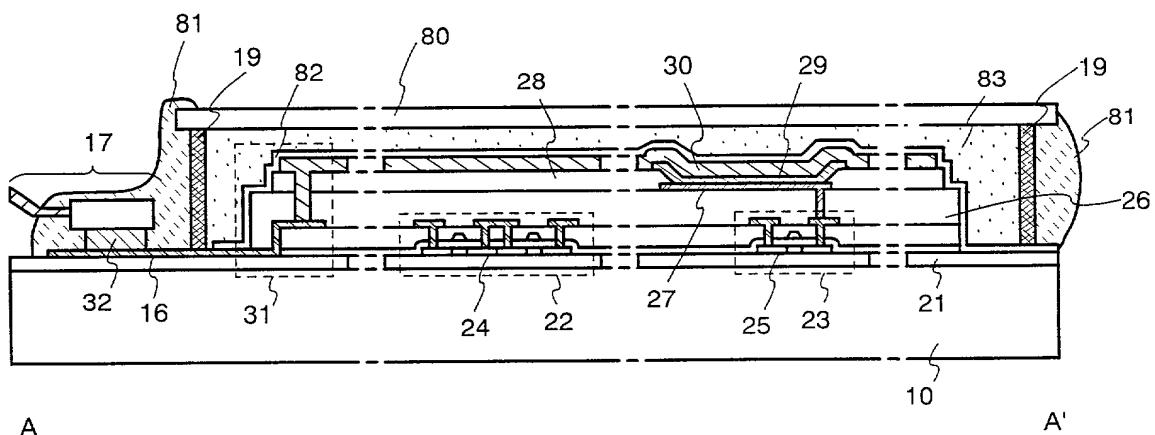
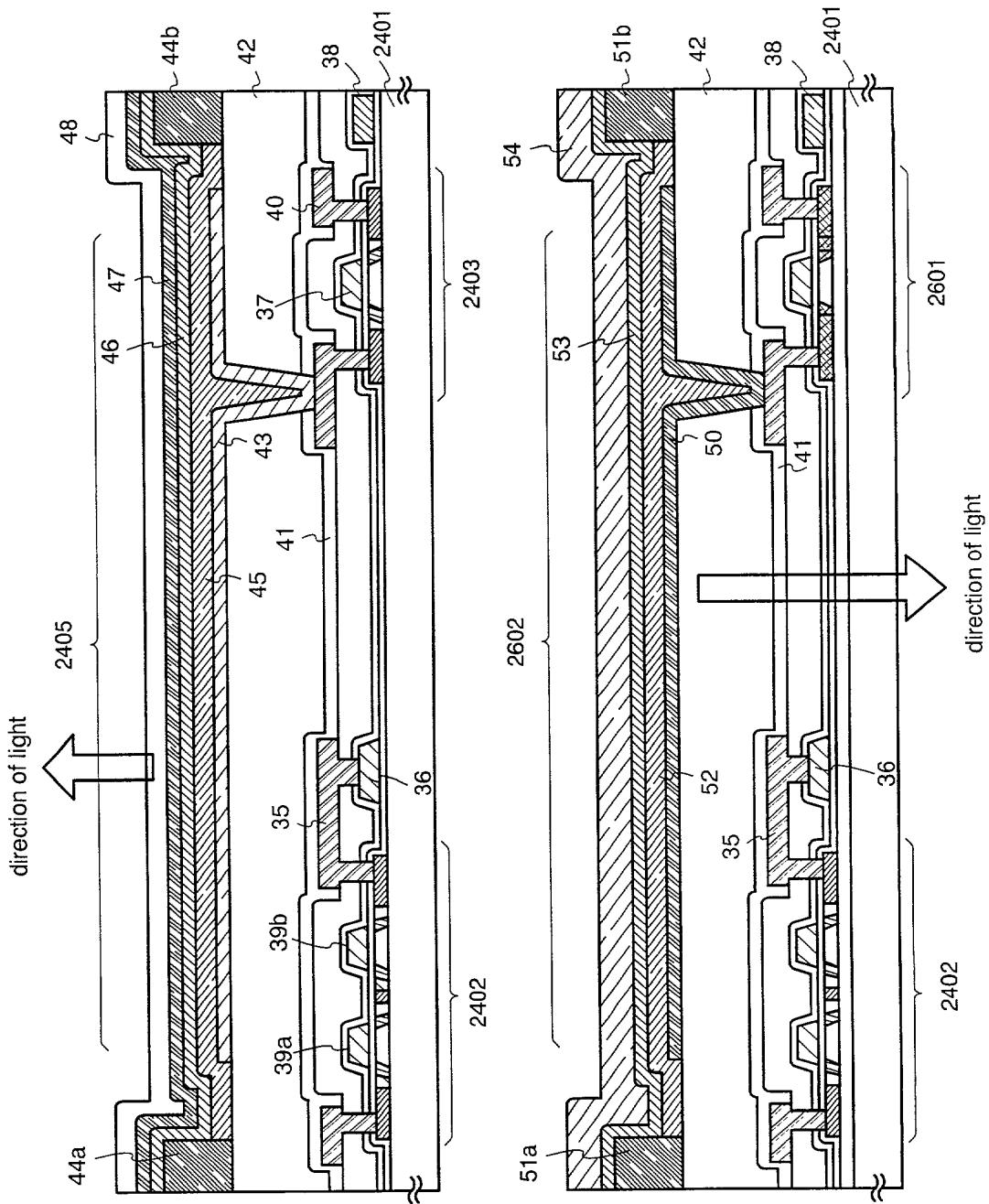


Fig. 18B



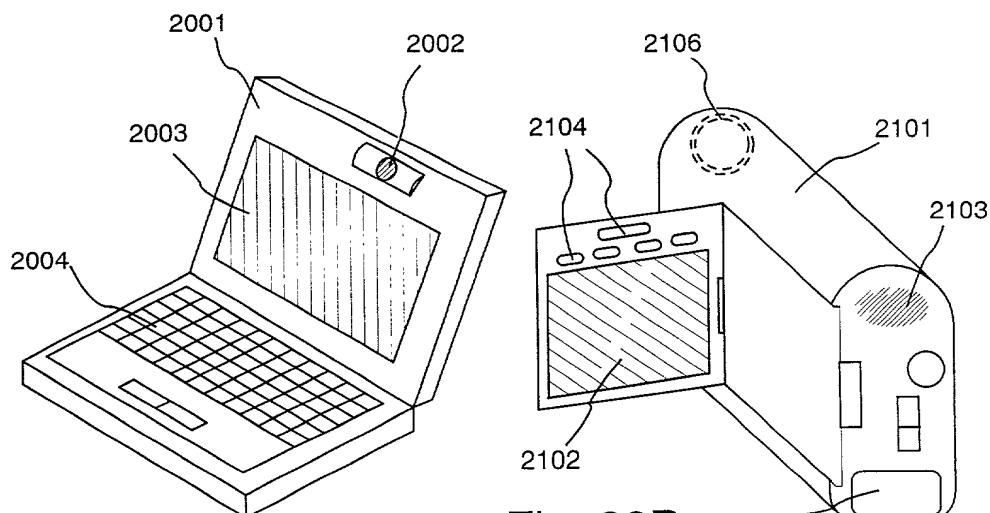


Fig. 20A

Fig. 20B

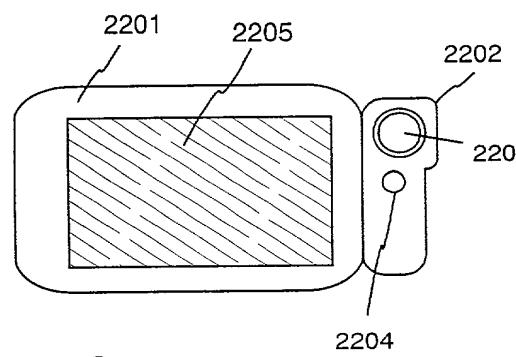


Fig. 20C

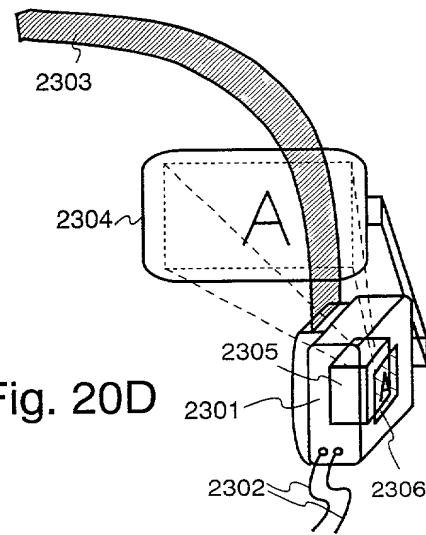


Fig. 20D

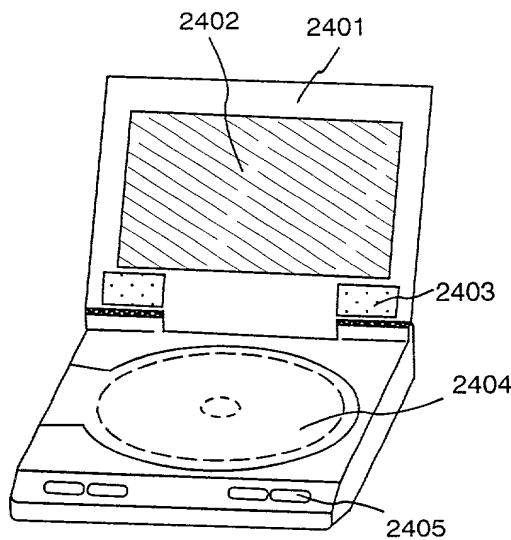


Fig. 20E

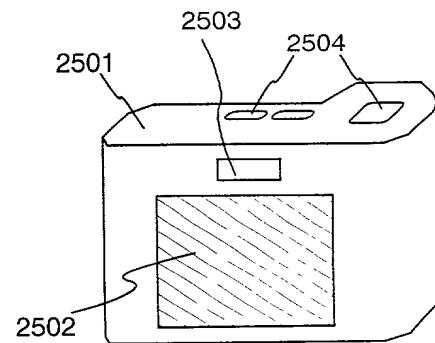


Fig. 20F

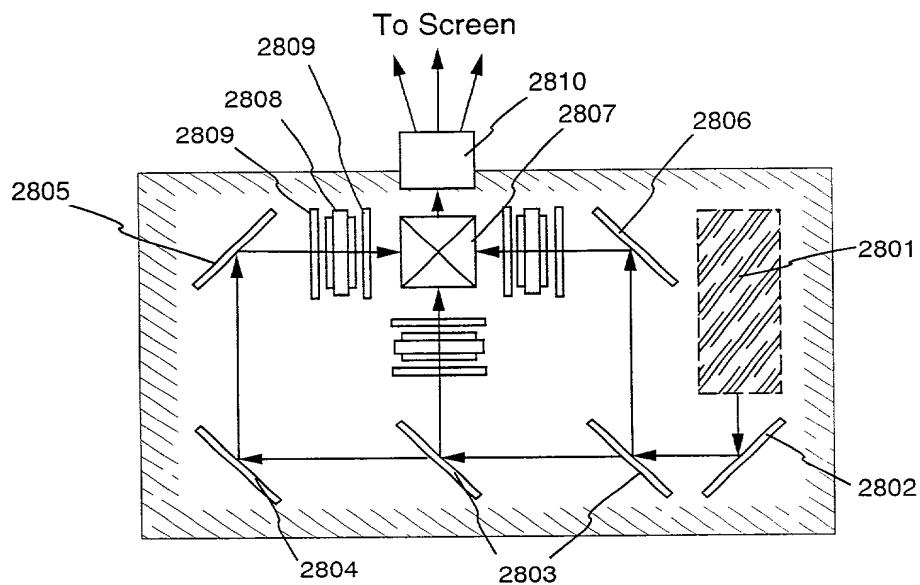
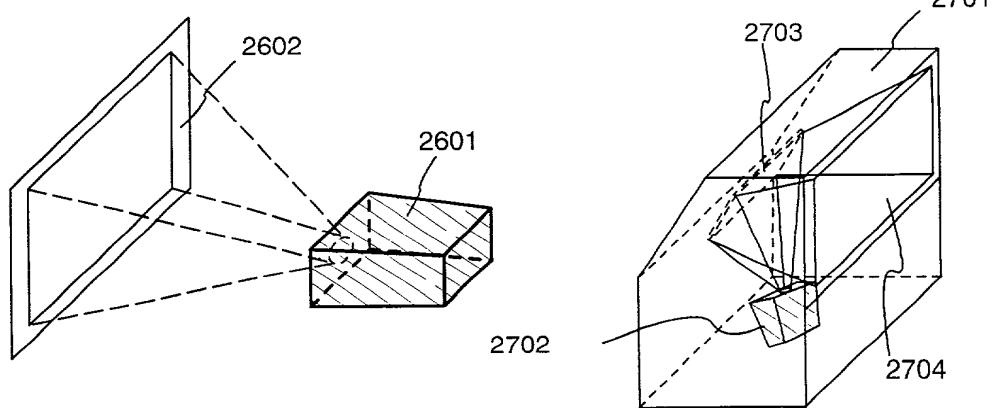


Fig. 21C

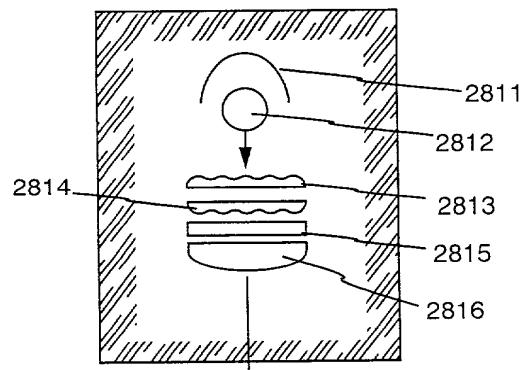


Fig. 21D

Fig. 22A

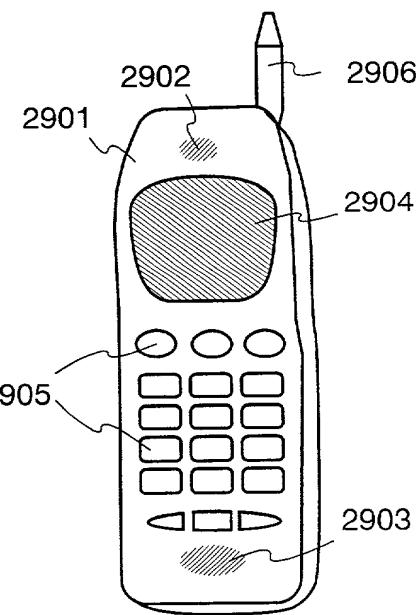


Fig. 22B

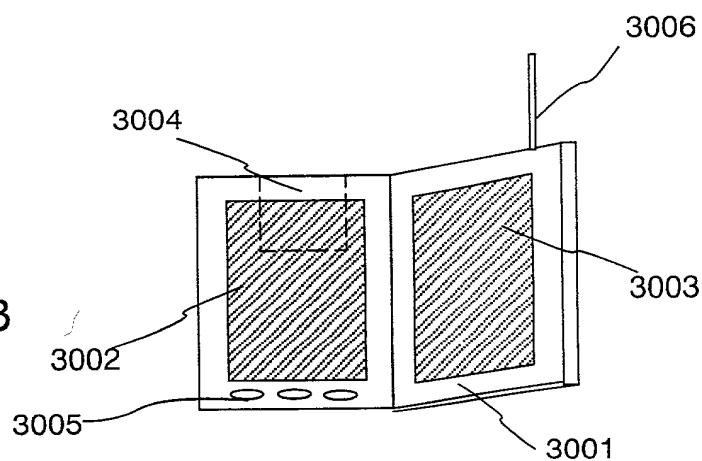
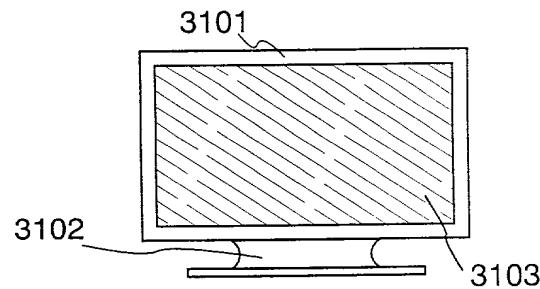


Fig. 22C



CONCENTRATION[atoms/cm³]

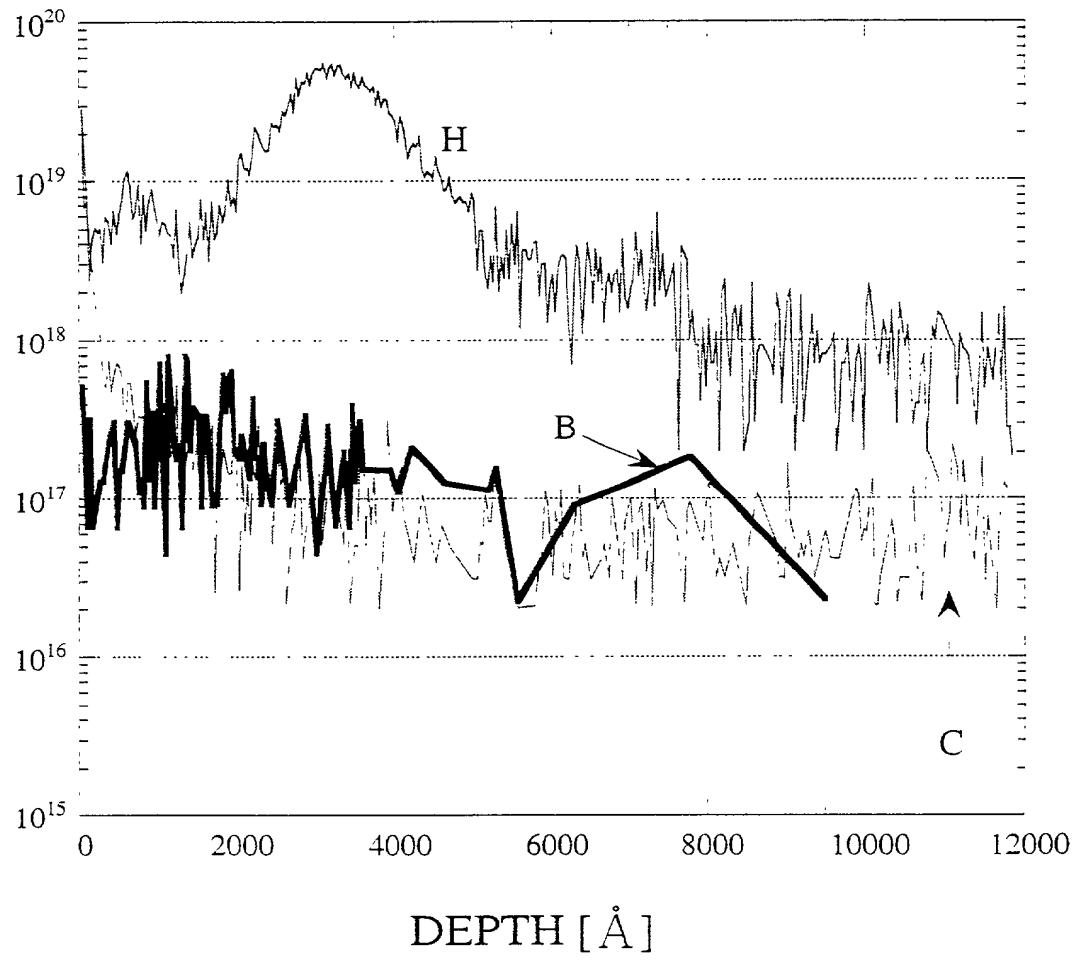


Fig. 23

CONCENTRATION[atoms/cm³]

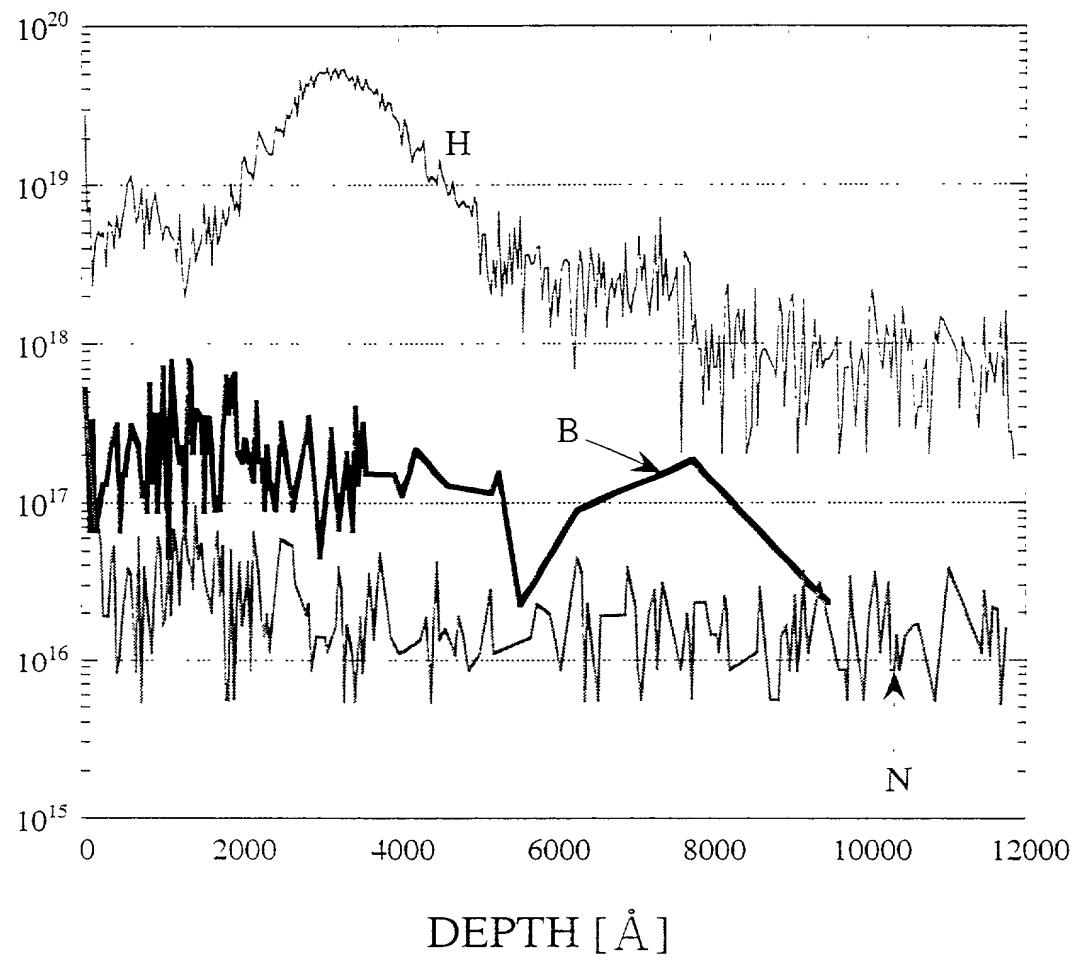


Fig. 24

CONCENTRATION[atoms/cm³]

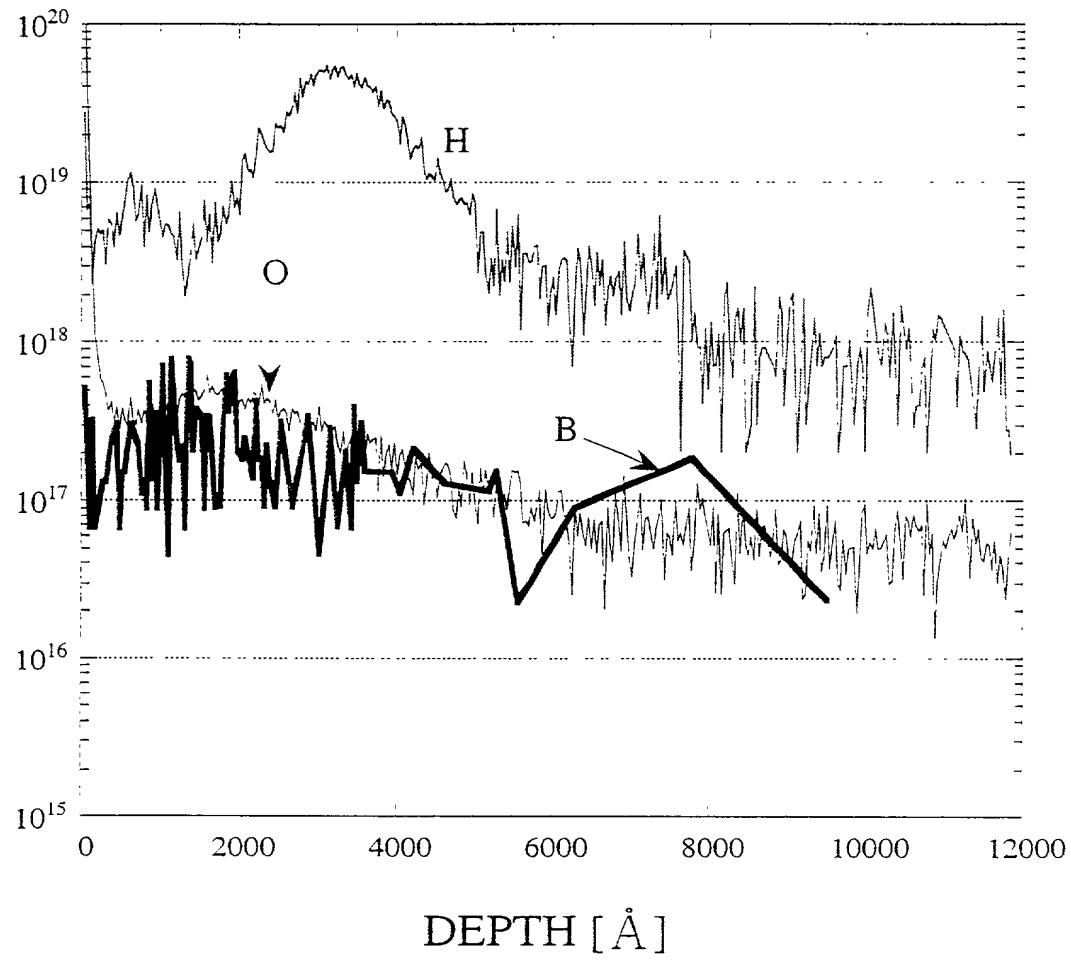


Fig. 25

CONCENTRATION[atoms/cm³]

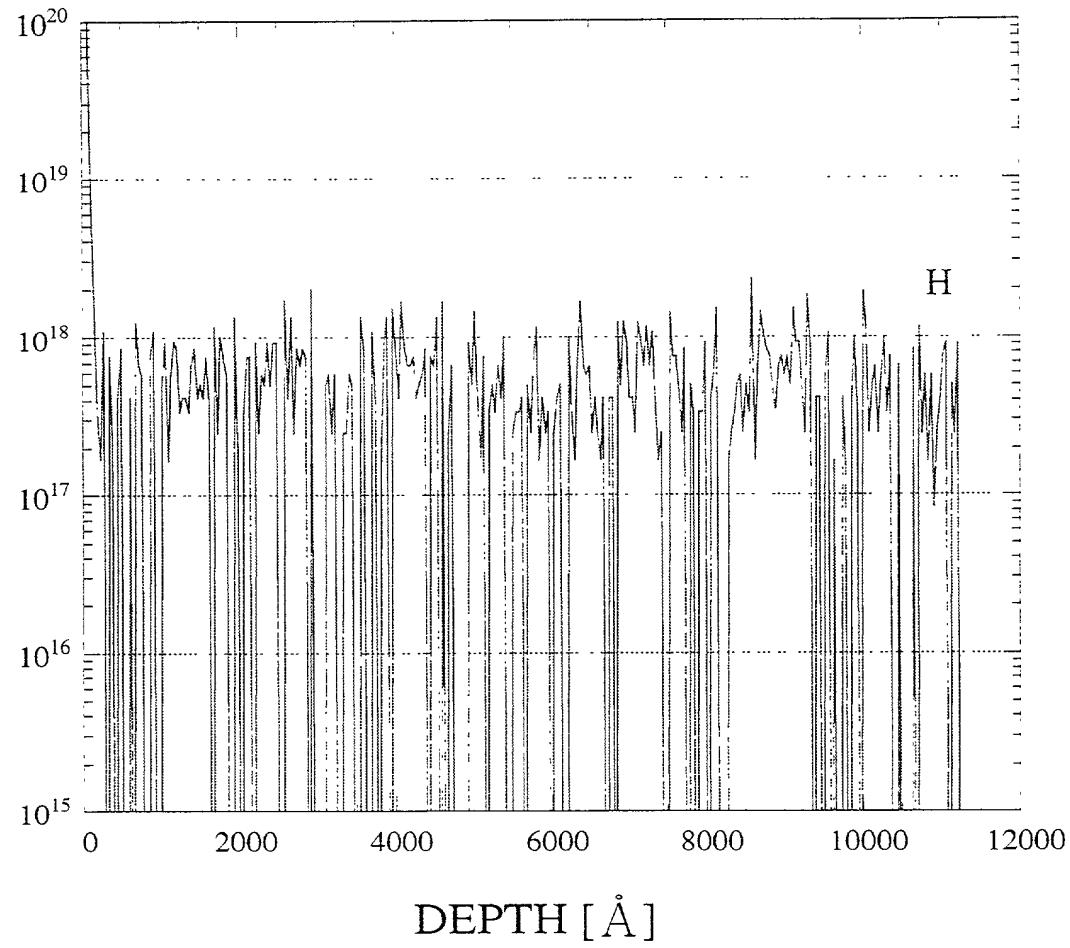


Fig. 26

CONCENTRATION[atoms/cm³]

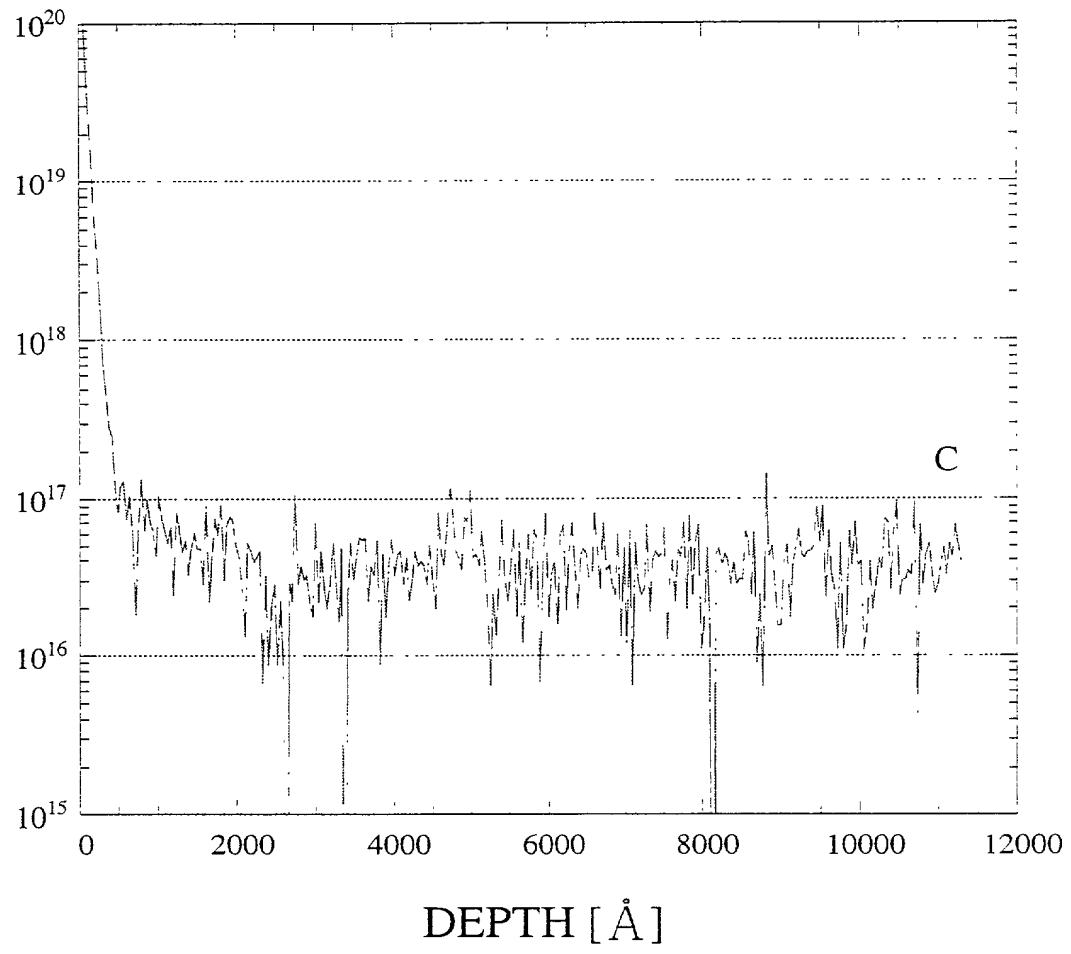


Fig. 27

CONCENTRATION[atoms/cm³]

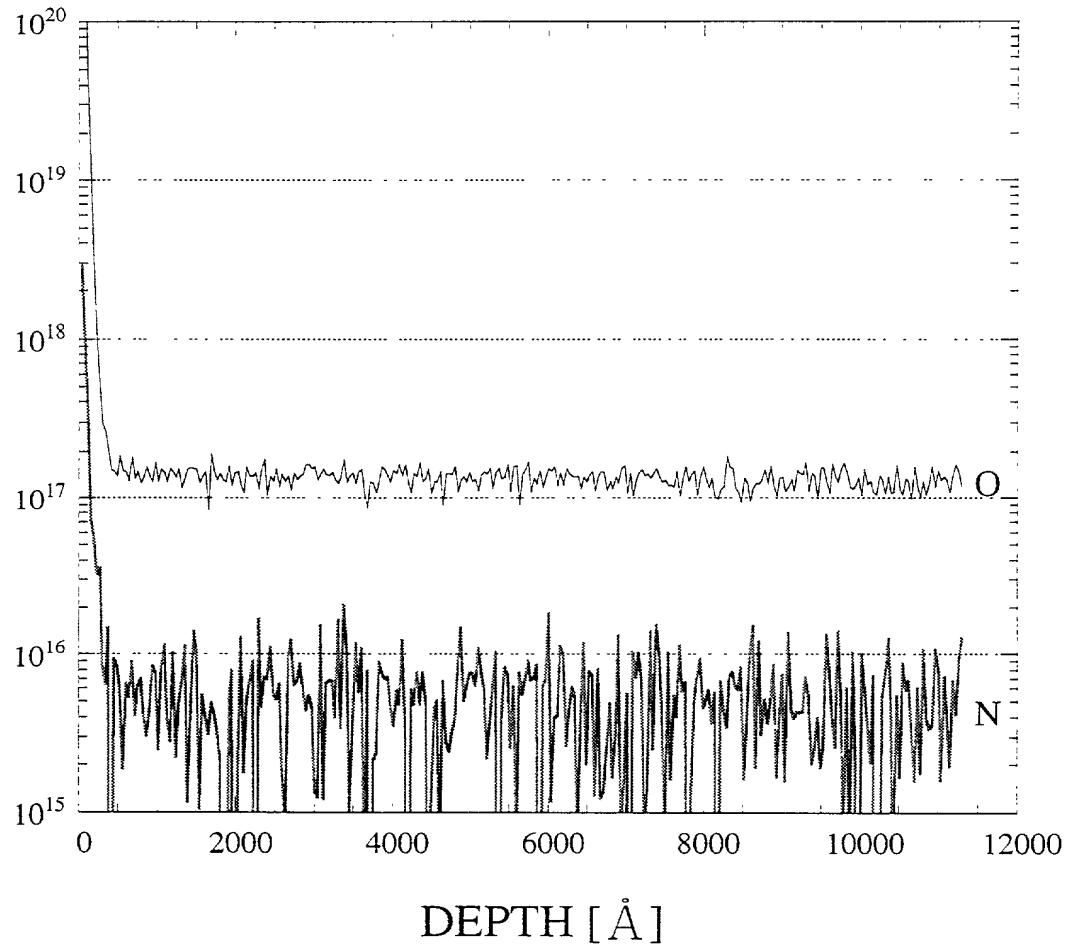
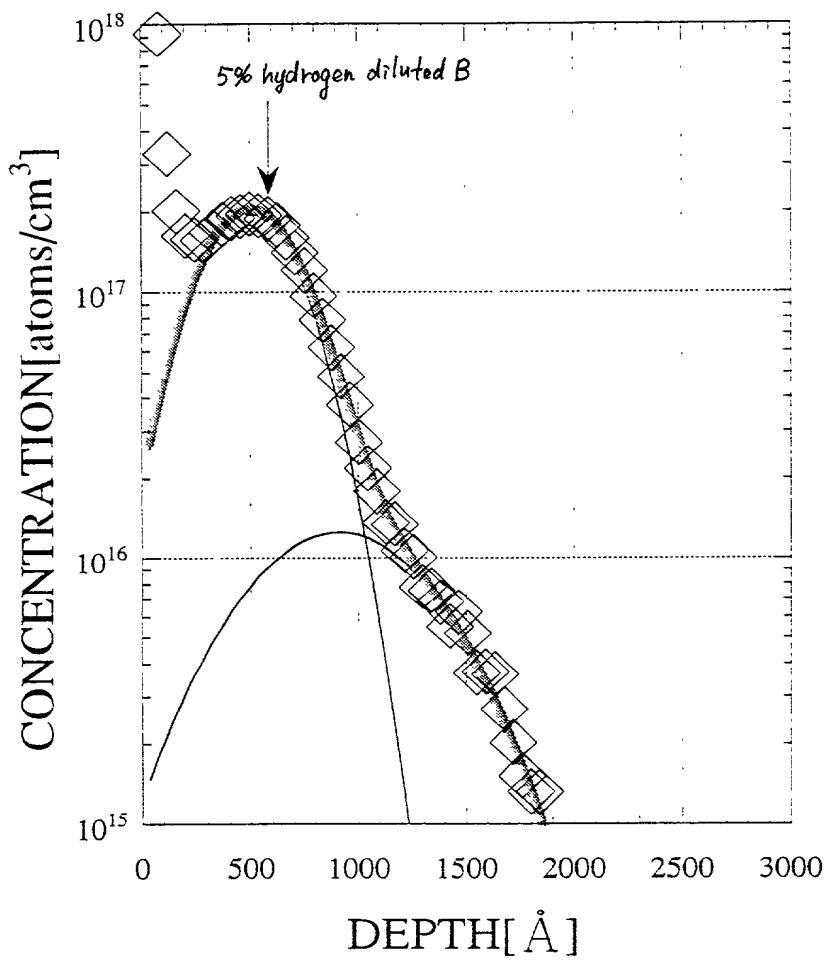


Fig. 28



5% B fitting	
	value
dosage 1	1.1224e+12
dosage 2	1.3183e+11
Standard deviation 1	227.08
Standard deviation 2	422.75
projected range 1	494.37
projected range 2	908.19
χ^2	0.52998
R	1

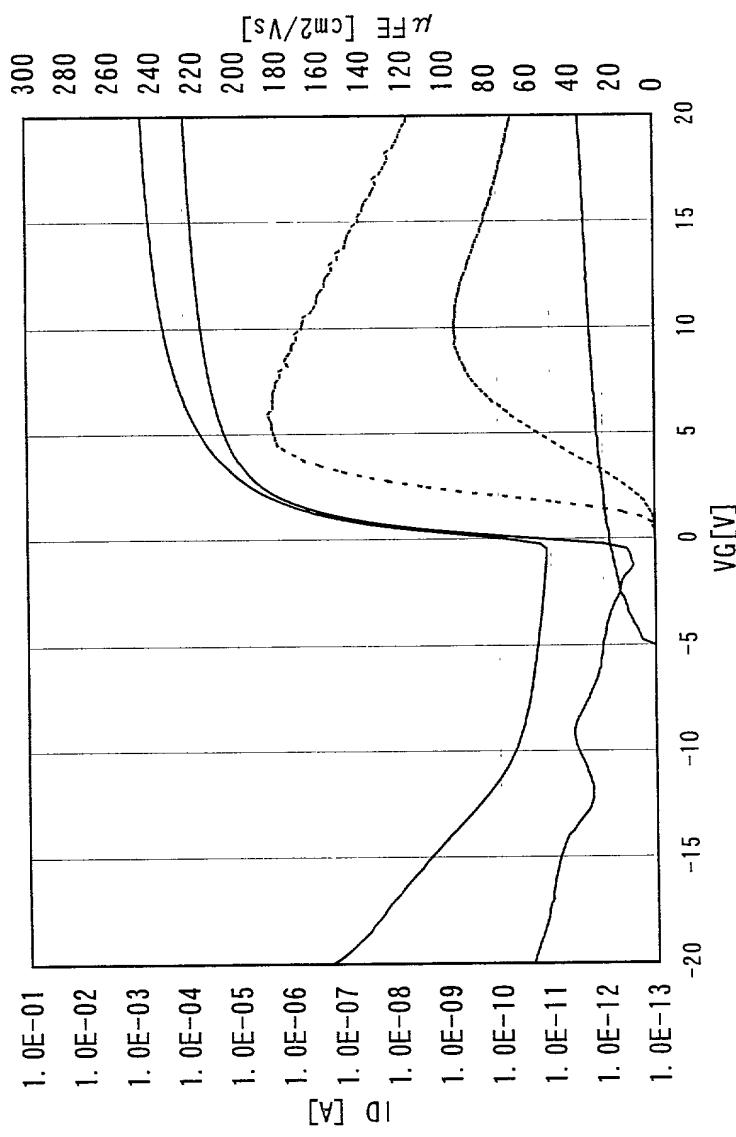
Gaussian function fitting
 projected range of B at 30kV (Å)
 LSS calculation (into Si or SiO₂)

$B^+ : \sim 1000 \text{ \AA}$

$$B_2^+ : \sim 500 \text{ \AA}$$

Fig. 29

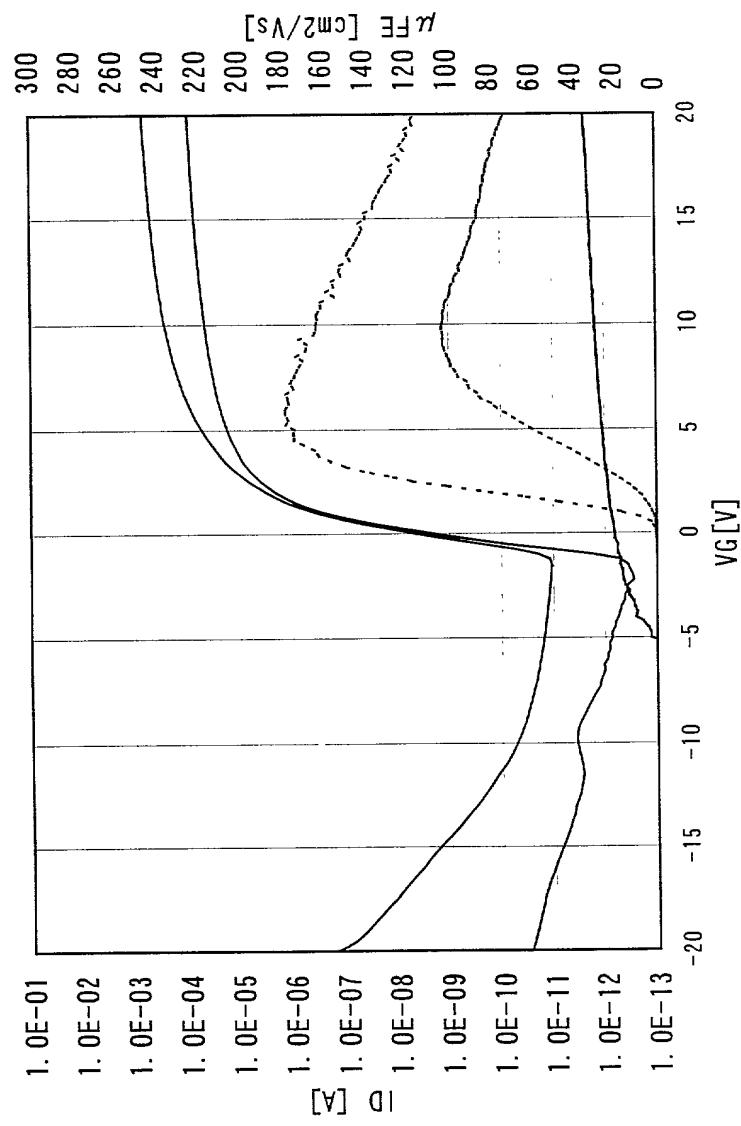
(N-ch, L/W= 7.1 / 7.5, Tox= 115)



parameter	N
channel type	N
kind of TFT	A
value of L [um]	7.1
value of W [um]	7.5
dielectric constant	4.1
thickness of oxide film [115
results	
I_{on} [A]	$2.44E-04$
I_{off} [A]	$1.70E-11$
$Shift$ [V]	-0.231
V_{th} [V]	1.430
S -value [V/dec]	0.201
μ_{FE} (max) [cm ² /Vs]	185.2

Fig. 30

(N-ch, L/W= 7.1 / 7.5, T_{ox} = 115)



parameters	
channel type	N
kind of TFT	A
value of L [um]	7.1
value of W [um]	7.5
dielectric constant	4.1
thickness of oxide film [nm]	115
results	
I_{on} [A]	2.65E-04
I_{off} [A]	1.43E-11
Shift_1[V]	-1.086
V_{th} [V]	1.361
S -value [V/dec]	0.308
μ_{FE} (max) [cm ² /Vs]	178.5

Fig. 31